



REMARKS

The Examiner had rejected claims 1-8, 11, 13, 14 under 35 U.S.C. 102b as being anticipated by Rayfield U.S. Patent 5,784,869.

The Examiner states Rayfield Patent discloses an arrangement of row crop harvester attachment of the mobile threshing unit comprising a mainframe attachment mounted to a mobile harvesting unit a first conveyor system (1), a first conveyor system (12) in the row crop harvester including a power source connected to plurality of row units (5) for removing grain from the stalks and conveying the material including the grain up a first inclined plane to exit from the first conveyor system, and a second conveyor system(6) at right angles to the first conveyor system and including a power source. The second conveyor system conveys the material from the exits of the first conveyor system to an area at the center of the plurality conveyor units for exits from said second conveyor system . The second conveyor system has two inclined planed surfaces (10 - concave shape) between the entrance and the exit, with surfaces being inclined equally and in opposite directions when the second system is perpendicular to the ground. An open area (11) is connected by an inclined plane between the exit of the second conveying system to the entrance of mobile threshing unit. The third conveying system (4) includes a power source in the mobile threshing unit.

Further regarding claims 2- 8,11, 13 and 14. The second conveyor system comprises of an auger with flighting (8, 9) and a trough (10) containing the auger. The auger flighting is reversed on opposite sides of the center line (8,9) The first and second conveyor systems are moved vertically and horizontally with respect to the third conveyor system by the pivoting of the row crop harvester about its mounting axis (Fig. 3, examiner's ref. A). The examiner states

that connection connecting the row crop harvester mobile threshing unit is moved laterally (examiner's ref. B) which is indeed a plurality of slots at an angle to the horizontal. Thus as the examiners pivot point is moved to the various slots there is indeed a rotational movement of the auger means of the third conveyor system of the movement with respect to the interior of the frame units of the third conveying system and or the rest of the first or second conveyor systems. The examiner states that vertical and horizontal movements are by spacer element (examiner's ref, C) which also acts as a filler plate. Elements designated C by the examiner are really a void which permits the rotational movement of the member 4.

It is believed that any such movement of the conveyor system of the threshing unit which is not movement relative to other units is made to adapt the feeder house entrance to a variety of corn heads. Thus permit the auger means or the transport means of the third conveying system to be located an appropriate distance from the rotor member 8 of the second conveyor system and indeed such distance would be modified as you moved the center point away or closer to the auger.

Applicants invention moves the framework holding the individual conveyor systems, not rotating, moving or pivoting about an axis as is done by Rayfield. The movement as called for in the claims and set forth in the specifications is a horizontal and a vertical adjustment of the first and second conveyor systems with respect to said third conveyor system. As Rayfield moves the belt of the third conveyor system, there is no movement relative to the first conveyor system and there is no movement of, or adjustment of the second conveyor system thus the system of Rayfield is not performing the same functions as applicants invention. A and B of Rayfield are

incapable of relative movement of the conveying systems one and two or three, causing the function of the claims.

Claims 9 and 10 were rejected under 35 U.S.C 1.03a as being unpatentable over Rayfield and once again the same arguments as above apply. In addition the invention of Rayfield would not perform with the polygonal shape of spacer which is indeed part of the conveying system rather than part of the main support system for the conveying systems.

The Examiner has stated that claims 12 and 15 would be allowable if rewritten to overcome the rejections under 35 U.S.C second paragraph set forth in the office action to include all of the limitations of the base claim and any intervening claims. Applicant submits that the claims 12 and 15 as submitted, being based upon claim 11, claim 4 which is in accordance with and based on claim 1 indeed all of the limitations of the base claim and any intervening claims are included in claims 12 and 15.

Applicants has submitted the required changes in the drawings to the official draftsman as required by the enclosure.

The application as now presented is believed to be in condition for allowance and action to that effect is requested.

Respectfully submitted,
Marion Calmer,

Date: 12-12-02

By 
H. Vincent Harsha Reg. No. 18,045

Harsha & Associates
U.S. Registered Patent Attorneys
1630-5th Avenue
Moline, Illinois 61265
Phone: (309) 797-0864 Fax: (309) 764-1485



VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

Claim 1 has been amended as follows:

1. (Amended) An improved arrangement of the spatial relationship between the functional elements of a row crop harvester attachment or header unit for mounting on and contacting with the functional elements of a mobile threshing unit comprising:

Claim 1, section c, has been amended as follows:

c) (Amended) a second conveyor system, at right angles to said first [conveying] conveyor system, including a power source for receiving the harvested material from the exits of said first conveyor system;

Claim 1, section f, has been amended as follows:

f) (Amended) the inclined plane surfaces at the entrance to and except at the exit from said second conveyor system are inclined equally and in a opposite direction when said second system is perpendicular to the ground;

Claim 1, section g, has been amended as follows:

g) (Amended) an open area connected by an inclined plane between [the] in said exit of the second [conveying] conveyor system to entrance of said mobile threshing unit;

Claim 1, section h, has been amended as follows:

h) (Amended) a third [conveying] conveyor system including a power source in said mobile threshing unit for retrieving material in said open area and delivering the material to the thresher mechanism.

CLAIMS

What is claimed is:

1. An improved arrangement of the spatial relationship between the functional elements of a row crop harvester attachment or header unit for mounting on and co-acting with the functional elements of a mobile threshing unit comprising:
- a) a row crop harvester having a main frame attachment mounted to a mobile harvesting threshing unit;
 - b) a first conveyor system in said row crop harvester including a power source, said power source connected to a plurality of row units mounted on said main frame for removing grain from the stalks and conveying the material including grain up a first inclined plane to exits from said first conveyor system;
 - c) a second conveyor system, at right angles to said first conveyor system, including a power source for receiving the harvested material from the exits of said first conveyor system;
 - d) said second conveyor system conveying said material from the exits of said first conveyor system to an area at the center of the plurality of row units for exit from said second conveyor system;
 - e) said second conveyor system having two inclined plane surfaces between the entrance and the exit;
 - f) the inclined plane surfaces at the entrance to and except at the exit from said second conveyor system are inclined equally and in a opposite direction when said second system is perpendicular to the ground;
 - g) an open area connected by an inclined plane between in said exit of the second conveyor system to entrance of said mobile threshing unit;
 - h) a third conveyor system including a power source in said mobile threshing unit for retrieving material in said open area and delivering the material to the thresher mechanism.

2. The invention in accordance with claim 1 wherein said second conveying system comprises an auger with flighting and a trough containing said auger.
3. The invention in accordance with claim 2, wherein said auger flighting is reversed on opposite sides of the centerline of said auger and said trough ends at a center area.
4. The invention in accordance with claim 1, wherein said first and second conveyor systems are moved vertically upwardly with relation to said third conveying unit, an amount sufficient to reduce the angle of the vertically inclined plane from said second conveying system exit to the entrance of said third conveying system.
5. The invention in accordance with claim 1, wherein horizontal adjustment of said first and second conveyor systems with respect to said third conveyor system is accomplished by moving laterally the connection of the header unit relative to the mobile threshing unit to reduce the angle of the inclined planes.
6. The invention in accordance with claim 1, wherein horizontal adjustment of said first and second conveyor system with respect to third conveyor system is accomplished by moving laterally the connection of the header unit relative to the mobile threshing unit to reduce distance between exit of said second conveyor system to the third conveyor system.
7. The invention in accordance with claim 4 where in said vertical movement between said first and second conveyor systems and said third conveying system is by a spacer element.
8. The invention in accordance with claim 5, wherein said horizontal movement between said first and second conveyor system and said third conveyor system is by a spacer element.
9. The invention in accordance with claim 5, wherein the spacer is rectangular in shape.
10. The invention in accordance with claim 5, wherein the spacer is a trapezoidal piece between the header unit and the threshing unit.
11. The invention in accordance with claim 4, wherein a feeder plate is attached to said second conveyor unit bridging between said second conveyor unit and said third conveying unit.

12. The invention in accordance with claim 11, wherein said feeder plate is made of elastomeric material to conform to variations in movement between the second and third conveying units.

13. The invention in accordance with claim 5, wherein a filler plate is added at the side of resultant the opening between the second conveyor system and the third conveying system.

14. The invention in accordance with claim 5, wherein a feeder plate is attached to said second conveyor unit bridging between said second conveyor unit and said third conveying unit.

15. The invention in accordance with claim 14, wherein said feeder plate is made of elastomeric material to conform to variations in movement between the second and third conveying units.